IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A wireless apparatus comprising:

a forward error correction (FEC) coder to encode digital data using a low density parity check (LDPC) code, said FEC coder including:

a matrix multiplication unit to multiply input data by a transpose of a first portion of a parity check matrix to generate modified data;

a differential encoder to differentially encode said modified data to generate coded data; and

a concatenation unit to concatenate the input data and the coded data to form a code word; and

a wireless transmitter to transmit a wireless signal that includes said code word.

2. (Original) The wireless apparatus of claim 1, wherein:

said wireless signal is an orthogonal frequency division multiplexing (OFDM) signal.

3. (Original) The wireless apparatus of claim 1, further comprising:

a mapper, between said FEC coder and said wireless transmitter, to map said code word based on a predetermined modulation scheme; and

an inverse discrete Fourier transform unit to convert mapped data from a frequency domain representation to a time domain representation.

4. (Original) The wireless apparatus of claim 1, wherein:

said parity check matrix is substantially as described in the list file of Appendix A.

5. (Original) The wireless apparatus of claim 1, wherein:

said parity check matrix is the same as the matrix described in the list file of Appendix A.

6. (Original) The wireless apparatus of claim 1, further comprising:

a storage medium to store a representation of at least said first portion of said parity check matrix for use by said matrix multiplication unit.

7. (Original) The wireless apparatus of claim 6, wherein:

said storage medium is operative to store a representation of the entire parity check matrix.

8. (Original) The wireless apparatus of claim 6, wherein:

said storage medium is operative to store a matrix that is substantially as described in the list file of Appendix A.

9. (Original) The wireless apparatus of claim 6, wherein:

said storage medium is operative to store a matrix that is a portion of a matrix that is substantially as described in the list file of Appendix A, said portion of said matrix being a portion having columns of weight 4.

10. (Original) The wireless apparatus of claim 1, wherein:

said LDPC code is a (2000, 1600) bit-length code.

11. (Original) The wireless apparatus of claim 1, wherein:

said wireless apparatus is a wireless user device for use in a wireless network.

12. (Original) The wireless apparatus of claim 1, wherein:

said wireless apparatus is a wireless access point.

13. (Original) The wireless apparatus of claim 1, wherein:

said wireless apparatus is a wireless network interface module.

14. (Original) The wireless apparatus of claim 1, wherein:

said wireless apparatus is an integrated circuit.

15. (Original) A method comprising:

matrix multiplying input data by a transpose of a first portion of a parity check matrix;

processing a result of said matrix multiplication using differential encoding to generate coded data;

concatenating said input data and said coded data to form a code word; and

generating and transmitting a wireless signal that includes said code word.

16. (Original) The method of claim 15, wherein:

said wireless signal is an orthogonal frequency division multiplexing (OFDM) signal.

17. (Original) The method of claim 15, further comprising:

accessing a storage medium storing a representation of at least a portion of said parity check matrix before matrix multiplying.

18. (Original) The method of claim 15, wherein:

said parity check matrix is substantially as described in the list file of Appendix A.

19. (Original) The method of claim 15, wherein:

said parity check matrix is the same as the matrix described in the list file of Appendix A.

20. (Original) The method of claim 15, wherein:

said parity check matrix defines a (2000, 1600) bit-length LDPC code.

21. (Original) The method of claim 15, wherein:

generating and transmitting a wireless signal includes mapping said code word into modulation symbols and processing said modulation symbols using an inverse discrete Fourier transform.

22.-29. (Canceled)

30. (Original) A system comprising:

a forward error correction (FEC) coder to encode digital data using a low density parity check (LDPC) code, said FEC coder including:

a matrix multiplication unit to multiply input data by a transpose of a first portion of a parity check matrix to generate modified data;

a differential encoder to differentially encode said modified data to generate coded data; and

a concatenation unit to concatenate the input data and the coded data to form a code word;

a wireless transmitter to transmit a wireless signal that includes said code word; and

at least one dipole antenna coupled to said wireless transmitter to facilitate transmission of said wireless signal.

31. (Original) The system of claim 30, wherein:

said wireless signal is an orthogonal frequency division multiplexing (OFDM) signal.

32. (Original) The system of claim 30, further comprising:

a storage medium to store a representation of at least said first portion of said parity check matrix for use by said matrix multiplication unit.

33. (Original) The system of claim 30, wherein:

said parity check matrix is substantially as described in the list file of Appendix A.

34. (Original) An article comprising a storage medium having instructions stored thereon that, when executed by a computing platform, operate to:

matrix multiply input data by a transpose of a first portion of a parity check matrix;

process a result of said matrix multiplication using differential encoding to generate coded data;

concatenate said input data and said coded data to form a code word; and

generate and transmit a wireless signal that includes said code word.

35. (Original) The article of claim 34, wherein:

said wireless signal is an orthogonal frequency division multiplexing (OFDM) signal.

36. (Original) The article of claim 34, wherein said instructions, when executed by the computing platform, further operate to:

access a storage medium having at least a portion of said parity check matrix stored thereon before matrix multiplying.

37. (Original) The article of claim 34, wherein:

said parity check matrix is substantially as described in the list file of Appendix A.

38. (Original) The article of claim 34, wherein:

said parity check matrix defines a (2000, 1600) bit-length LDPC code.